

Amendments to the Drawings:

The attached sheet of drawings includes changes to Fig. 2. This sheet, which includes Fig. 2 replaces the original sheet including Fig. 2.

Attachment: Replacement Sheet
Amended Sheet showing correction

REMARKS/ARGUMENTS

Claims 1-2, 6-7, 17-18, and 22-23 are amended by this response. No claims are canceled or added. Accordingly, following entry of these amendments and remarks, claims 1-25 will remain pending for examination.

Figure 2 was objected to because of reference numbers 208, 201, and 219. Accordingly, Figure 2 has been amended to delete reference number 201. The specification has been amended to refer to the substrate as 208, with infrared radiation being referenced with number 219.

Claims 2 and 18 were objected to as lacking antecedent basis for "sensing device." Accordingly, claims 2 and 18 have now been amended to recite "detection device", antecedent basis for which is provided in independent claims 1 and 17, respectively.

Claim 7 is objected to as being a substantial duplicate of claim 6. Accordingly, claim 7 was amended to recite that the temperature sensing device comprises one of the first or second reflection devices. Support for this amendment may be found in the specification at ¶[0031].

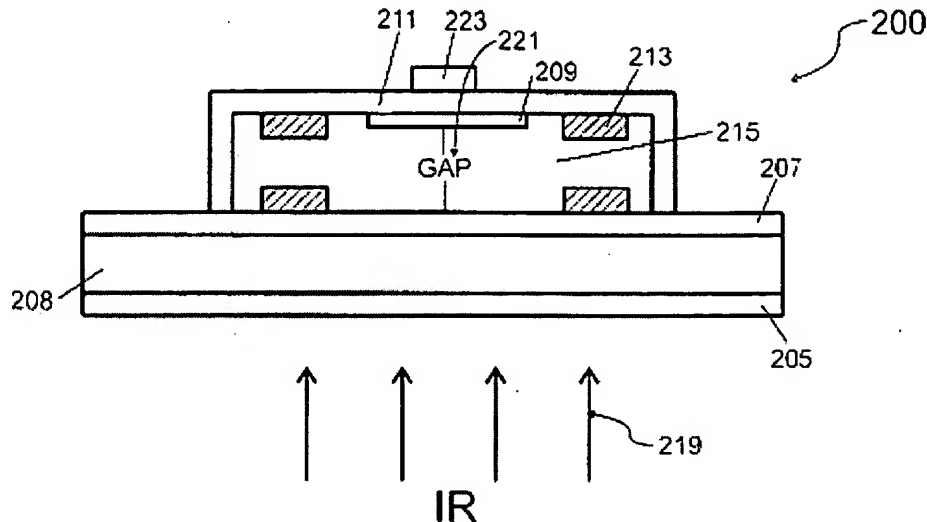
Claims 6, 7, and 22 were objected to as being of improper dependent form for failing to further limit the subject matter of the parent independent claims. Accordingly, claims 6 and 22 have been amended to recite "temperature sensing device." Claim 7 has been amended to recite "temperature sensing device comprises one of the first or second reflection devices." Support for these amendments may be found in the specification at least at ¶[0023] and ¶[0031].

Claim 19 is objected to as being of improper dependent form for failing to further limit the subject matter of the parent independent claim 17. Accordingly, claim 17 is amended to remove "IR." Support for this amendment may be found in the application at least at ¶[0007], ¶[0018], and ¶[0020].

Claim 23 is objected to as containing a trademark/trade name. Accordingly, claim 23 is amended to replace "Parylene" with "polymer." Support for this claim amendment may be found in the specification as originally filed at least at ¶[0008], ¶[0027], and ¶[0048].

Turning now to address rejection of the claims based upon alleged prior art, embodiments of the present invention relate to an apparatus and method for sensing electromagnetic radiation using a tunable device. As illustrated and described in connection with Figure 2 (reproduced

below), certain embodiments disclose electromagnetic radiation (219) entering the tunable device through a substrate (208).



As indicated in at least ¶[0019]-[0020] of the instant specification, the substrate is transparent to the incident electromagnetic radiation. Pending independent claims 1 and 17 accordingly recite:

1. An integrated tunable sensing apparatus for electromagnetic radiation, the sensing apparatus comprising:
 a substrate comprising a backside and a face, the substrate transparent to incident electromagnetic radiation of a wavelength;
 a tunable cavity region coupled to the backside of the substrate and configured to receive the incident electromagnetic radiation transmitted through the substrate . . .

* * *

17. A method for sensing electromagnetic radiation having a predetermined spatial frequency, the method comprising:
 providing a substrate transparent to a band of electromagnetic radiation;
 . . . receiving the band of electromagnetic radiation transmitted through the substrate;
 . . . causing a resonating characteristic of a selective wavelength corresponding to the band of electromagnetic radiation between the first reflection device and the second reflection device within the tunable cavity while being maintained at the second predetermined spatial dimension . . .

The Examiner has rejected these claims as being anticipated by U.S. Patent Publication No. US2001/0015810 ("the Hara publication"). These claim rejections are traversed as follows.

As a threshold matter, the Examiner is respectfully reminded that certain claims stand rejected as anticipated, and not merely obvious, in view of the Hara publication:

[t]he distinction between rejections based on 35 U.S.C. 102 and those based on 35 U.S.C. 103 should be kept in mind. Under the former, the claim is anticipated by the reference. No question of obviousness is present. In other words, for anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. (Emphasis added; MPEP 706.02)

Like the instant application, the Hara publication describes an apparatus for sensing electromagnetic radiation. Unlike the claimed embodiments however, the Hara publication signally fails to teach an apparatus or method wherein the electromagnetic radiation is transmitted through a transparent substrate.

Instead, the Hara Publication teaches only detection of electromagnetic radiation that is incident to a front side of a substrate. Figure 15 (reproduced below) of the Hara publication shows electromagnetic radiation as being incident to the detector through a Fabry-Perot filter:

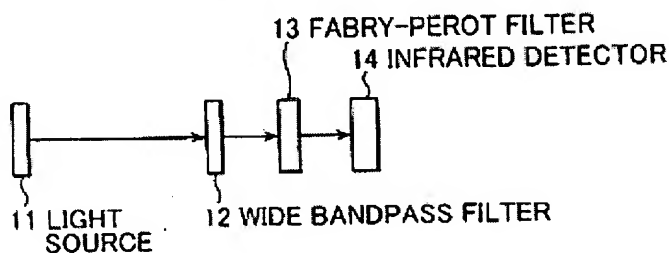
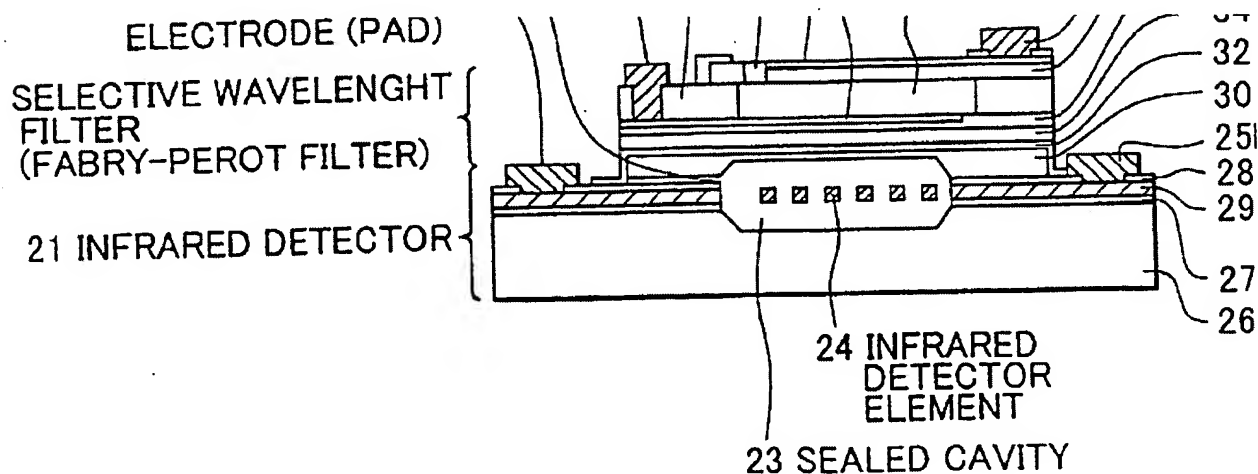


Figure 16 (reproduced in part below) of the Hara publication shows the detector positioned behind the Fabry Perot filter and in front of the underlying substrate (26):

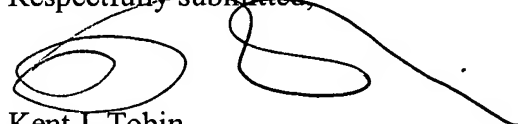


Thus in the apparatus disclosed by the Hara publication, incident radiation (light) reaches the substrate after the detector. There is no teaching or even suggestion here that the electromagnetic radiation be detected after it has passed through a transparent substrate in the manner claimed. In fact, if the apparatus of the Hara publication were positioned with the substrate facing the radiation source, incident radiation would bypass the filter element completely. Accordingly, the Hara publication fails to teach, explicitly or even impliedly, a substrate having the claimed transparency to incident electromagnetic radiation.

In view of the failure of the art relied upon by the Examiner to teach, or even suggest, all of the elements of the pending claims, it is respectfully asserted that the claims cannot be considered anticipated or obvious. Continued maintenance of the claim rejections is improper, and these claim rejections should be withdrawn.

Based on the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400

Respectfully submitted,

A handwritten signature in black ink, appearing to be "Kent J. Tobin", written over the typed name.

Kent J. Tobin
Reg. No. 39,496

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 415-576-0300
Attachments
KJT:bcs

60964242 v1

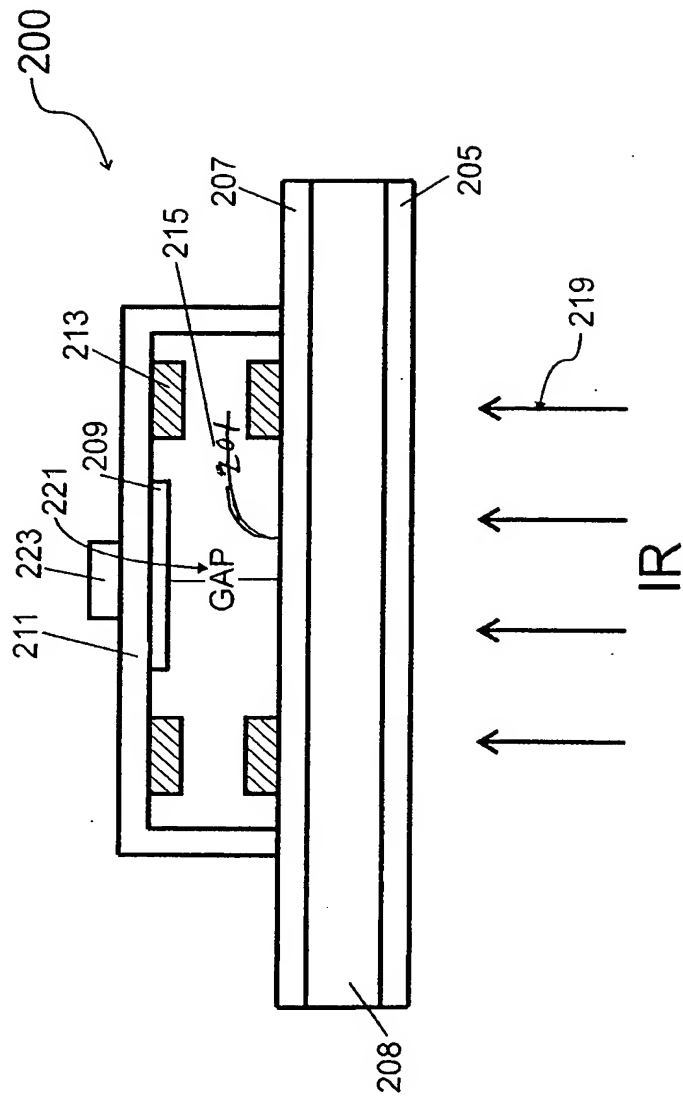


FIGURE 2